



2003 S&T Award winners honored

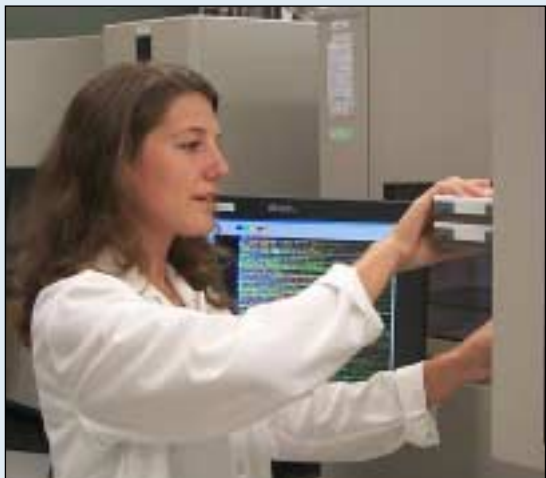


PHOTO BY KEVIN PATRICK MELISSARE/BBRP

JGI's Susan Lucas gathers samples for the high-speed capillary sequencing machines.

By Anne M. Stark
NEWSLINE STAFF WRITER

A team of scientists that carried out the first-ever measurements of the phonon dispersion curves in plutonium and a scientific team that developed a highly optimized high-throughput sequencing process for the Human Genome Project have garnered the 2003 Laboratory Science and Technology Awards.

At a luncheon last week, Director Michael Anastasio, Hal Graboske, acting deputy director for Science and Technology, and senior managers honored the teams for achieving groundbreaking accomplishments.

The LLNL Science & Technology Awards were established in 2000 and are given annually



MARLEEN EMIG/CMS

CMS scientist Joe Wong with the sample holder used in his plutonium experiments.

for notable achievements in science and technology. As part of the annual institutional awards program, the recognition brings with it a monetary award and memorabilia presented to individuals selected by senior management.

The five-member plutonium group made a breakthrough in the history of the experimental investigation of plutonium by being the first team to fully map the phonons in gallium-stabilized delta plutonium. The work was published in the Aug. 22 edition of *Science*.

A second research team, led by Susan Lucas of the Joint Genome Institute and made up of Tijana Glavina, Sanjay Israni, Chris Detter and Art Kobayashi, was instrumental in creating and mas-

See S&T AWARDS, page 8

Admiral S. Robert Foley appointed by UC regents to oversee national labs

Admiral S. Robert Foley, newly appointed UC vice president for Laboratory Management, said the university would look at "all options" in competing for the contract to manage the national labs for the Department of Energy and the National Nuclear Security Administration.

Foley spoke to the press by teleconference shortly after his appointment to the post was made official Monday by the UC Board of Regents. He succeeds John McTague.

"Admiral Robert Foley is an excellent choice for this position. He has a strong commitment to the laboratories and is well versed on our programs, projects and issues. I look forward to working with him," Director Michael Anastasio said. "I also want to thank Bruce Darling for serving as the interim VPLM over the past 10 months. His superb leadership on laboratory issues has been invaluable."

"Admiral Foley's breadth of experience provides him with a unique pedigree that will benefit both the labs and the University of California," Rep. Ellen Tauscher said. "His strong leadership skills and past experience with the nation's nuclear weapons complex make him an ideal candidate to manage the labs while maintaining the world-class caliber of science done there."

As vice president for lab management, Foley, a longtime naval commander and consultant on energy and defense issues, will have primary responsibility

See FOLEY, page 7



S. Robert Foley

Open Enrollment 2004 offers Lab employees numerous benefit options

Next month is Open Enrollment, the time of year when employees make decisions about their UC health benefits for the coming year. Open Enrollment for 2004 begins at 8 a.m. Saturday, Nov. 1, and ends at midnight, Sunday, Nov. 30.

Health care costs nationwide continue to rise significantly and employers everywhere are facing double-digit increases for 2004 health benefits as explained in other University of California communications and from various newspaper and magazine articles. For UC, which prides itself on providing its fac-

See OPEN ENROLLMENT, page 8

Edward Teller commemoration set for Nov. 3

A special commemoration honoring the late Dr. Edward Teller will be held at 2 p.m. Monday, Nov. 3, in the Bldg 123 auditorium. George Shultz, secretary of state during the Reagan administration and a longtime colleague and friend of Teller's, will be the keynote speaker. The Laboratory, the Hoover Institution at Stanford University and the University of California are sponsoring the event.

Teller, who dedicated his life to science, education, the Laboratory and national security, died in his Stanford home Sept. 9, at the age of 95.

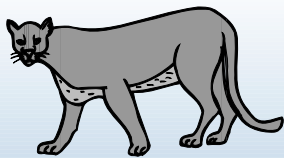
Due to the extensive number of



Edward Teller
1908-2003

Dr. Teller's colleagues and friends who are expected to attend, the event is by invitation only. All Laboratory employees are invited to watch the commemoration, which will be broadcast live on Lab TV Channel 2. Employees may also go to the auditorium in Building 543 or the Poseidon room in Bldg 111 (L- or Q-clearance needed) to view the event on a large screen. The Discovery Center auditorium (Trailer 6525) will also be open for large screen viewing. Seating is on a first-come, first served basis at all venues. The event will also be

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Mountain lion sightings
— Page 2



HOME campaign in the starting blocks
— Page 3



Engineer's view of NASA
— Page 7



LAB COMMUNITY NEWS

Weekly Calendar

Technical Meeting Calendar, page 4

Tuesday
28

Health Services continues to offer **free flu vaccines** to employees this week. A walk-in clinic in Health Services (Bldg. 663) continues today through Thursday from 1–4 p.m. Walk-in clinics continue Nov. 4–6, and Nov. 11–13. Staffing will be increased to reduce waiting time. Please note that retirees not working at the Lab and contractors are not eligible for flu shots this year; retirees currently working at LLNL are eligible. For more information, call 3-8703.

...

The Work/Life Programs Office is offering a brown bag session on **“Organizer to the Rescue: Caregiver’s Special,”** at noon today in Bldg. 571, room 1301. The workshop will help employees learn how to help organize caregivers and seniors. Topics include clutter control, preparation for downsizing, office reorganizations, filing systems, family financial tracking and bill paying. For more information or to pre-register, contact Carol Sandoli, 2-9543, or sandoli1@llnl.gov.



The **2nd Annual Downtown Livermore Art Walk** will take place Saturday, Nov. 1, from 11 a.m.–5 p.m. Fifty downtown businesses will host 100 artists presenting the best original fine art in the Tri-Valley. Walking maps are available at U.S. Bank, LAA Gallery, Panama Bay, Oddfellows Hall, Chamber of Commerce, Way Up Art & Frame. Art Walk is produced by TriValley Artists Guild in association with Livermore Art Association, City of Livermore, ArtSpace Livermore, Livermore Downtown, and support from sponsors and volunteers.

...

A **Fidelity retirement counselor** will be available Nov. 4–5 to assist with assessing the current state of retirement accounts, learning how to diversify, planning asset allocation, and identifying income strategies. Fidelity Investments Mutual Funds are available to UC’s workplace retirement plan participants in addition to the UC-managed investments pools. To set up a one-on-one consultation with a Fidelity representative, call 800-642-7131. When calling, be sure to specify that you are an LLNL employee.

...

The Employee and Organization Development Department has openings in an **improving your presentation skills workshop** to be held Nov. 5–6 from 8:15 a.m. to 4:30 p.m. Presentation Delivery (ED7333-A), is a two-day workshop at the Training Center, Trailer 1879. Cost is \$690–\$950, depending on the number of participants. Limited space is available. For additional information or to enroll, contact EODD Training, 2-4842.

...

The location for the **How to win an R&D 100 Award presentation** has changed. The 2004 kickoff workshop on How to Win an R&D100 Award, scheduled for Tuesday, Dec. 2, at 10 a.m., will now take place in the newly remodeled Bldg. 361 auditorium. Potential submitters are strongly encouraged to attend. For more information, contact Lisa Chartrand, 2-2297.

A sign of greater awareness



JACQUELINE MCBRIDE/NEWSLINE

Paul Singleton of the Department of Defense’s Computer/Electronic Accommodations Program, gave a presentation Tuesday on his struggle to make the federal government a model for employing people with disabilities. Singleton, who is deaf, used American sign language during the event, which was part of Disabilities Awareness Week.

Cougar sightings prompt call for precautions

Sightings of a mountain lion (*Felis concolor*) at Sandia prompted security officials there and at the Laboratory earlier this week to advise employees who walk and run around the Sandia site to take precautions.

While the likelihood of encountering a cougar is remote, people who walk or run on the Sandia grounds are advised to travel in pairs and remain vigilant. Any sightings should be reported to Sandia Security at 294-2300 and to LLNL wildlife biologists at 4-WILD (424-9453).

Sandia officials say that there have been eight reported sightings of a single mountain lion since July.

Though they generally avoid contact with humans, mountain lions can be dangerous. They are very quick and able to leap the 10-foot fences on site.

“It’s important to remember that we work on the northern edge of very good mountain lion habitat,” said Michael van Hattem, Lab wildlife biologist. “As a carnivore and top predator, the mountain lion has always been here, playing an important role in the ecosystem function and health.”

Growing concern for and appreciation of mountain lions led to their being designated a “special protected mammal” in 1990.

The mountain lion, also commonly called a cougar, panther or puma, is tawny colored with black-tipped ears and a long tail. Adult males may be more than 8 feet long, from nose to the end of tail, and weigh between 130 and 150 pounds. Females are generally smaller.

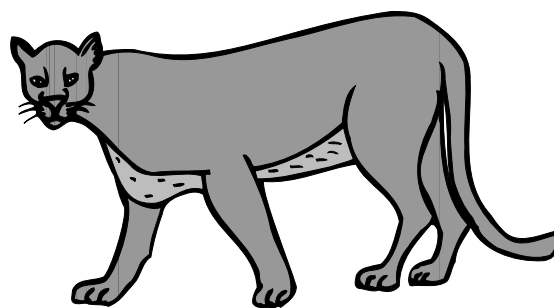
By nature they are secretive and solitary, which makes it possible for humans to live in mountain lion country without ever seeing one. According to the California Department of Fish and Game, the potential for injury from an encounter with a mountain lion is very low compared to other natural haz-

ards. For example, there is a far greater risk of being struck by lightning.

The department offers the following advice in the unlikely event a person should encounter a mountain lion:

- Do not hike alone.
- Do not run from a lion.
- Do not crouch down or bend over — crouching or bending over makes one appear smaller and more like four-legged wildlife prey.
- Do everything you can to appear larger.
- Fight back if attacked.

For more information, consult the fish and game Web site at <http://www.dfg.ca.gov/lion/>.



Newsline

Newsline is published weekly by the Internal Communications Department, Public Affairs Office, Lawrence Livermore National Laboratory (LLNL), for Laboratory employees and retirees.

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Photographer: Denise Kellom, Jacqueline McBride

Designer: Julie Korhummel, 2-9709

Distribution: Mail Services at LLNL

Public Affairs Office: L-797 (Trailer 6527), LLNL, P.O. Box 808, Livermore, CA 94551-0808

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Web site: <http://www.llnl.gov/PAO/>

NEWS OF NOTE



HOME campaign prepares for another record run

By Emmeline Chen
IBIS

The 2003 Run for HOME, the annual kickoff event for the Laboratory’s HOME (Helping Others More Effectively) Campaign, will take place on Wednesday, Oct. 29. The theme of this year’s run is “Team America — Three Cheers for the Red, White and Blue,” and everyone is encouraged to dress up in theme-related costumes as they participate in the run and visit the nonprofit-agency booths at the HOME fair.

Past Runs for HOME have traditionally been held on Halloween. However, because Halloween falls on a Friday this year, the 2003 run was moved to Wednesday to accommodate employees with alternate work schedules.

This year’s run is sponsored by the Chemistry and Materials Science (CMS) Directorate and is chaired by Al Moser, a CMS operations manager, with assistance from Jana Marden, the administrator for CMS’s Materials Science and Technology Division.

The HOME Fair

Everyone is invited to learn about some of the nonprofit agencies featured in the HOME Campaign booklet by visiting the HOME fair, which will be in parking lot Z-1, south of Bldg. 132. Representatives from more than 130 agencies will be available to provide information, answer questions

and discuss how their organizations help the local community. The fair will be open from 11 a.m. to 1 p.m.

Nonprofit agencies received more than \$1.46 million from last year’s HOME Campaign, which had an employee participation rate of 49 percent. The Laboratory Services Directorate, the sponsor of the 2003 HOME Campaign, has set a fund-raising goal of \$1.5 million and hopes that an even greater percentage of employees will support local charities through this year’s campaign.

The race

Members of the Laboratory community can run, swim, rollerblade or walk in the Run for HOME. Bicycles, scooters and motorized vehicles are not allowed in the event. All participants will receive free Run for HOME T-shirts and snacks — bagels with cream cheese, fruit, energy bars, bottled water and juice. In addition, at the end of each race, participants can request Run for HOME certificates by filling out and turning in cards with their names and race times. Cards will be handed out at the finish line.

Runners at Site 300 will begin their 3000-meter course at noon. An awards ceremony will follow, with donation-award certificates being

given to the fastest male and female runners in the open and masters categories.

Participants at the Livermore site can choose between an 800-meter swim and a 3-kilometer course for runners, rollerbladers and walkers. Swimmers will start at 11 a.m. in the Laboratory pool and are then invited to visit the HOME fair and gather with the other Livermore main-site participants at West Perimeter Drive,

just outside parking lot Z-3, beside Bldg. 132.

Special guest Scott Haggerty, an Alameda County supervisor, and Laboratory Director Michael Anastasio will start the race for rollerbladers, runners and walkers at the Livermore site. Rollerbladers will begin skating at noon, followed by runners at 12:02 p.m. and then walkers. Race participants will not need to have their badges touched and checked when reentering the Laboratory because security officers will be stationed throughout the entire course to ensure that no one from outside the Laboratory joins the run. Additional details are available online at <http://cmsonly.llnl.gov/HOME/> and at <http://www-r.llnl.gov/home2003/run.html>.

After the race, donation-award certificates will be presented to the fastest male and female skaters, runners and swimmers in the open and masters categories.

Costume prizes

As always, everyone at the Run for HOME is encouraged to dress up in costumes. Centipedes, superheroes, giant insects and hula hoopers are a few of the creatures that have participated in past runs. Many more are expected to appear at this year’s Run for HOME.

A costume-judging station will be set up at the end of the Livermore site’s run course. Judges will determine the winners of the following categories: most patriotic, most colorful, most humorous and most creative. The team with the best multiperson costume will also receive an award.

Entertainment

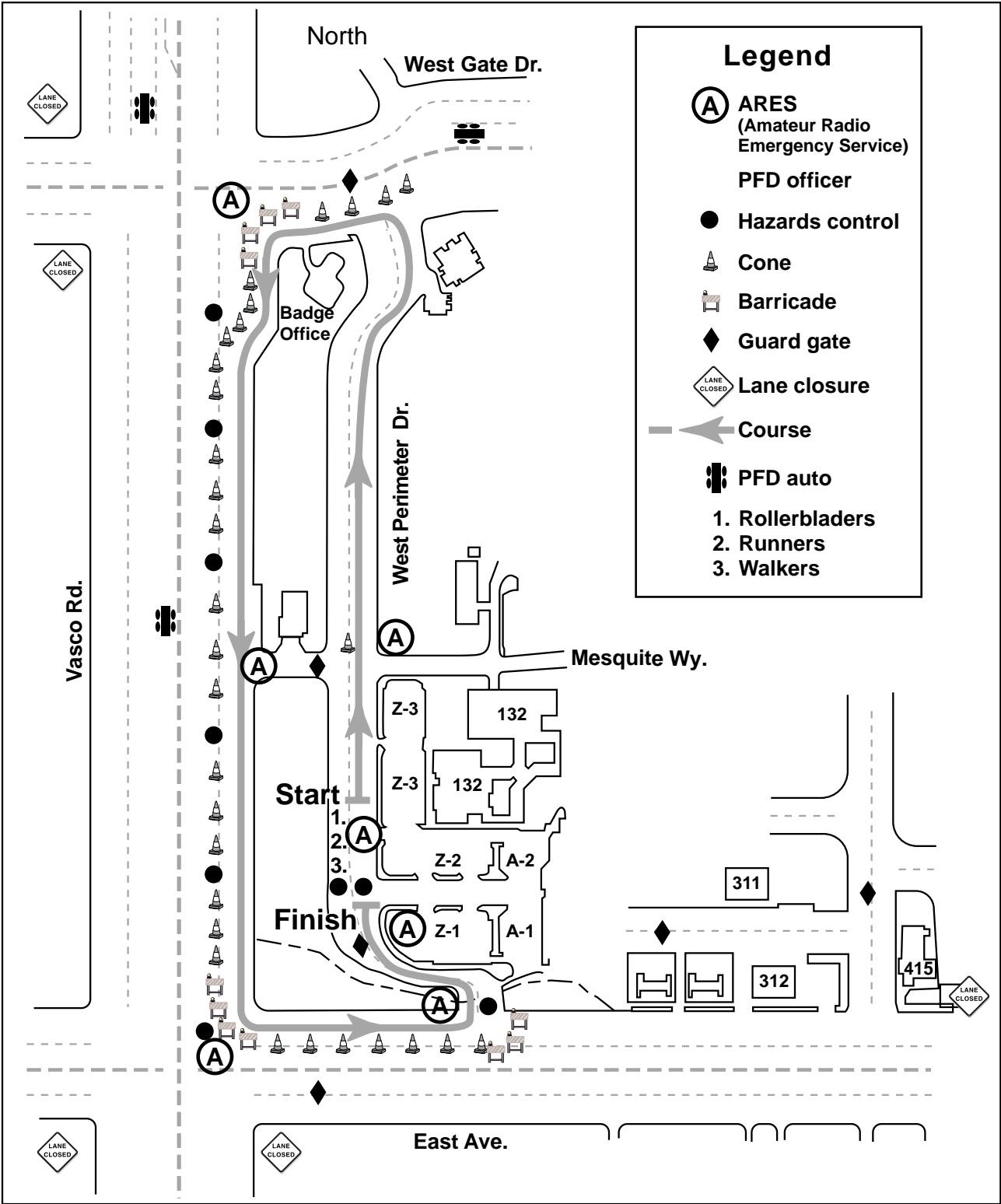
Music at the Livermore site will be provided by Rock Harbour, a classic-rock band made up of five Laboratory employees and retirees: vocalist and keyboardist Rob Allen from the Computation Directorate; drummer Brian Andresen, who recently retired from CMS; guitarist and vocalist Ben Hindson from the Physics and Advanced Technologies Directorate; guitarist and vocalist Tom Metz from the Engineering Directorate; and Mike Murphy, a Laboratory retiree who plays bass.

Food

For those still hungry after eating free snacks, there will be opportunities to buy lunches at the Livermore site. Two Laboratory employee networking groups, the American Indian Activity Group (AIAG) and the Association of Black Laboratory Employees (ABLE), will sell food to raise money for their student scholarship funds. AIAG will offer “Indian tacos” for \$5, while ABLE will sell beverages for \$1 each. In addition, salads, wraps and sodas will be available for purchase from Eurest Dining Services.

Parking restrictions

The Z-1 parking lot, just off the West Perimeter Drive entrance to the Laboratory, will be closed Tuesday and Wednesday, Oct. 28–29, for the Run for HOME and the HOME fair. In addition, no vehicles will be allowed to enter or exit parking lots A-1, A-2, Z-2, and Z-3 from 11 a.m. to 2 p.m. on Oct. 29, the day of the race.





NEWS YOU CAN USE

Lab optometrists keep their eyes on visual safety

When it comes to ergonomics, plenty of attention is given to chairs, keyboards and monitors to provide the best possible alignment for bones, joints and muscles. Yet, when it comes to working safely, the eyes should also be given attention. Vision is a key element of ergonomic evaluations.

That's the philosophy held by Timothy Dalby and Alan Milano, the optometrists of the Hazards Control Department. They provide professional services in the Lab's Safety Glasses Office, supplying prescription safety glasses, computer glasses and other eyewear to Lab employees. The Lab has provided prescription and nonprescription safety glasses to employees for more than 40 years.

Currently, the optometrists see approximately 3,500 employees each year. A Website has been created to help employees with their questions, making it easier to follow the process to receive glasses. For more information on safety and computer glasses, visit the safety glasses Website at http://www-r.llnl.gov/es_and_h/safety_glasses/index.html.

The Website provides the forms and procedures necessary to receive glasses, from prescription and nonprescription lenses to safety glasses, computer glasses, laser eyewear and even respirator inserts.



"We want everyone to be safe and accident free," Dalby explained. "With all the attention given to ergonomics it's only natural that proper glasses and eyewear be a part of that. There are plenty of people who work on computers and most of them do not realize the tremendous strain those computers put on their eyes. That's why we are here: to help relieve some of that strain and help employees prevent it."

Any employee who frequently uses a computer or needs eye protection is eligible. The first step in obtaining computer glasses is to have a workstation evaluation performed by a qualified ergonomics evaluator (call 2-ERGO). Next, after obtaining a properly filled out authorization form and a current eyeglasses prescription (written no more than one year prior), call to schedule an appointment with the Safety Glasses Office, located in Bldg. 663 (Health Services) at extension 2-5190.

Prescription laser safety glasses are also available through the Safety Glasses Office. Contact the laser safety officer for the ES&H Team supporting your area for an evaluation of the optical density needed for your laser.

If you need only nonprescription safety eyewear, these may also be obtained at the Safety Glasses Office.

Appointments with the Safety Glasses Office are available Monday and Tuesday from 8:30 a.m. to 4

p.m. (closed for lunch), and Wednesday and Thursday from 8:30 a.m. to 11:30 a.m. For further information and/or questions, call 2-5190.

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Technical Meeting Calendar

Friday
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INSTITUTE FOR GEOPHYSICS AND PLANETARY SCIENCE

"Gamma-Ray Astronomy of the Milky Way with GLAST," by Seth Digel, Stanford University. Noon, Bldg. 319, room 205. Contact: Wil van Breugel, 2-7195, or Josie Morgado, 3-4188.

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Simplification, Adaptivity and Conservation in Front Tracking Method," by Xiaolin Li, State University of New York at Stony Brook. 10 a.m., Bldg. 451, room 1025 (property protection area). For more information see URL <http://www.llnl.gov/casc/calendar.shtml>. Contact: Lori Diachin (CASC), 2-7130, or Leslie Bills 3-8927.

CHEMISTRY & MATERIALS SCIENCE MATERIALS SCIENCE AND TECHNOLOGY DIVISION-GUEST SPEAKER

"New Insights Into the Liquid Water Surface from X-Ray Spectroscopy of Liquid Microjets," by Richard J. Saykally, UC Berkeley. 3:30 p.m., Bldg. 235, Gold Room. Coffee and cookies will be served at 3:20 p.m. Contact: Jim Tobin, 2-7247, or Rebecca Browning, 2-5500.

Monday
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INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Image Processing: From Segmentation to Recognition," by Achi Brandt, Weizmann Institute of Science. 10 a.m., Bldg. 451, room 1025 (property protection area). For more information see URL

<http://www.llnl.gov/casc/calendar.shtml>. Contact: Rob Falgout (CASC), 2-4377, or Leslie Bills 3-8927.

Tuesday
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RADIATION DETECTION CENTER

"Measuring theta13 and the Future of Reactor Neutrino Oscillation Experiments," by Karsten Heeger, Lawrence Berkeley National Laboratory, 11 a.m., Bldg. 151, room 1207 (uncleared area). Contact: Ron Wurtz, 3-8504, or Christie Shannon, 3-6683.

Thursday
30

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Efficient Solution of the Discretized S_N Time-dependent Boltzmann Transport Equation on Parallel Platforms," by Douglas Swesty, State University of New York at Stony Brook. 11 a.m., Bldg. 451, room 1025 (property protection area). For more information see URL (<http://www.llnl.gov/casc/calendar.shtml>). Contact: Frank Graziani, 2-4803, or Leslie Bills, 3-8927.

BIOLOGY AND BIOTECHNOLOGY RESEARCH PROGRAM

"Host Gene Expression Responses to Biothreat and Pathogenic Agents," by Marti Jett, Walter Reed Army Institute of Research (WRAIR). 10:30 a.m., Bldg. 361 auditorium. Contact: Joo Kim, 4-3792, or Ray Mariella, 2-8905.

Friday
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INSTITUTE FOR GEOPHYSICS AND PLANETARY SCIENCE

"The Evolving Universe of Galaxies from Redshift 3.5 to 1.5," by Kurt Adelberger, Carnegie Observatories. Noon, Bldg. 319, room 205. Contact: Wil van Breugel, 2-7195, or Sharon Taberna, 3-6290.

Friday
7

INSTITUTE FOR SCIENTIFIC COMPUTING RESEARCH

"Computational Models of Cellular Metabolic Fluxes," by Daniel Segre, Harvard Medical School. 10 a.m., Bldg. 451, room 1025 (property protection area). For more information see URL <http://www.llnl.gov/casc/calendar.shtml>. Contact: Bill Bosl (CASC), 4-5015, or Leslie Bills 3-8927.

INSTITUTE FOR GEOPHYSICS AND PLANETARY SCIENCE

"Shock-Induced Star Formation," by Chris Fragile, AX Division. Noon, Bldg. 319, room 205. Contact: Wil van Breugel, 2-7195, or Josie Morgado, 3-4188.

Thursday
13

PHYSICS AND ADVANCED TECHNOLOGIES/ N DIVISION

"Some Results from the Reaction 20Ne + 24Mg," by Roby Anne Elizabeth Austin, McMaster University, Department of Physics and Astronomy. 1:30 p.m., Bldg. 2128, room 1000 (badge required). Contacts: John Becker, 2-9676, or Pat Smith, 2-0920.

The deadline for the next Technical Meeting Calendar is noon, Wednesday.

Send your input to tmc-submit@llnl.gov. For information on electronic mail or the newsgroup llnl.meeting, contact the registrar at registrar@llnl.gov.

NEWS OF NOTE



Conference explores frontiers of electron microscopy

Scientists meeting in Berkeley this past week revealed the atomic structure of materials ranging from nanotubes to virus particles using powerful electron microscopes. LLNL organized and co-sponsored the 9th Frontiers of Electron Microscopy in Materials Science Conference held October 5-10 at the Claremont Resort and Spa in Berkeley.

One hundred forty leaders in the field of the application of electron microscopy in materials science, physics, and biology from 14 countries met in the United States for the first time since meeting in Germany in 1998 and in Japan in 2000. Nearly 100 presentations (including talks and posters) outlined the intense vibrancy and diversity of the field, demonstrating stunning advances in instrumentation, analysis, and techniques that are opening new windows to the nanoscale world.

The meeting opened on Monday with sessions on analytical electron microscopy and applications of focused ion beams to prepare samples for electron microscopic observation. Later sessions examined the potential for shrinking the resolution of the electron microscope to 0.5 angstroms and for probing a single column of atoms or even a single atom at a time.

On Wednesday, the Frontiers of Electron Microscopy in Materials Distinguished Lectureship award was presented to Professor J. C. H. Spence of Arizona State University in recognition of his numerous and significant contributions to the field. His lecture was entitled, "Diffractive Imaging for Atomic-resolution Tomography in Biology and Materials Science."

Applications in biology and nanomaterials were reviewed on Thursday. Of particular note was the presentation by Wah Chiu, the Alvin Roman-sky professor at the National Center for Macromolecular Imaging and Graduate Program in Structural & Computational Biology & Molecular



PHOTO BY ALEX BALLARD/IBIS

Wayne King of the Chemistry and Materials Science Directorate and founder of the FEMMS series of conferences presents the FEMMS2003 Distinguished Lectureship award to Professor John C. H. Spence of Arizona State University.

Biophysics at Baylor College of Medicine. In his presentation, Chiu used the examples of Cytoplasmic Polyhedrosis Virus, P22 Bacteriophage, and the Rotavirus to demonstrate how electron microscopy could quickly identify the sub-nanometer resolution structure of complicated molecular assemblies.

This work has significant national security implications. The potential exists to use electron cryomicroscopy to respond immediately to the need for identification of a biologic agent. This could be accomplished through direct visual iden-

tification of the molecular biologic agents using Chiu's advanced techniques in electron cryomicroscopy, computer reconstruction, and statistical pattern matching.

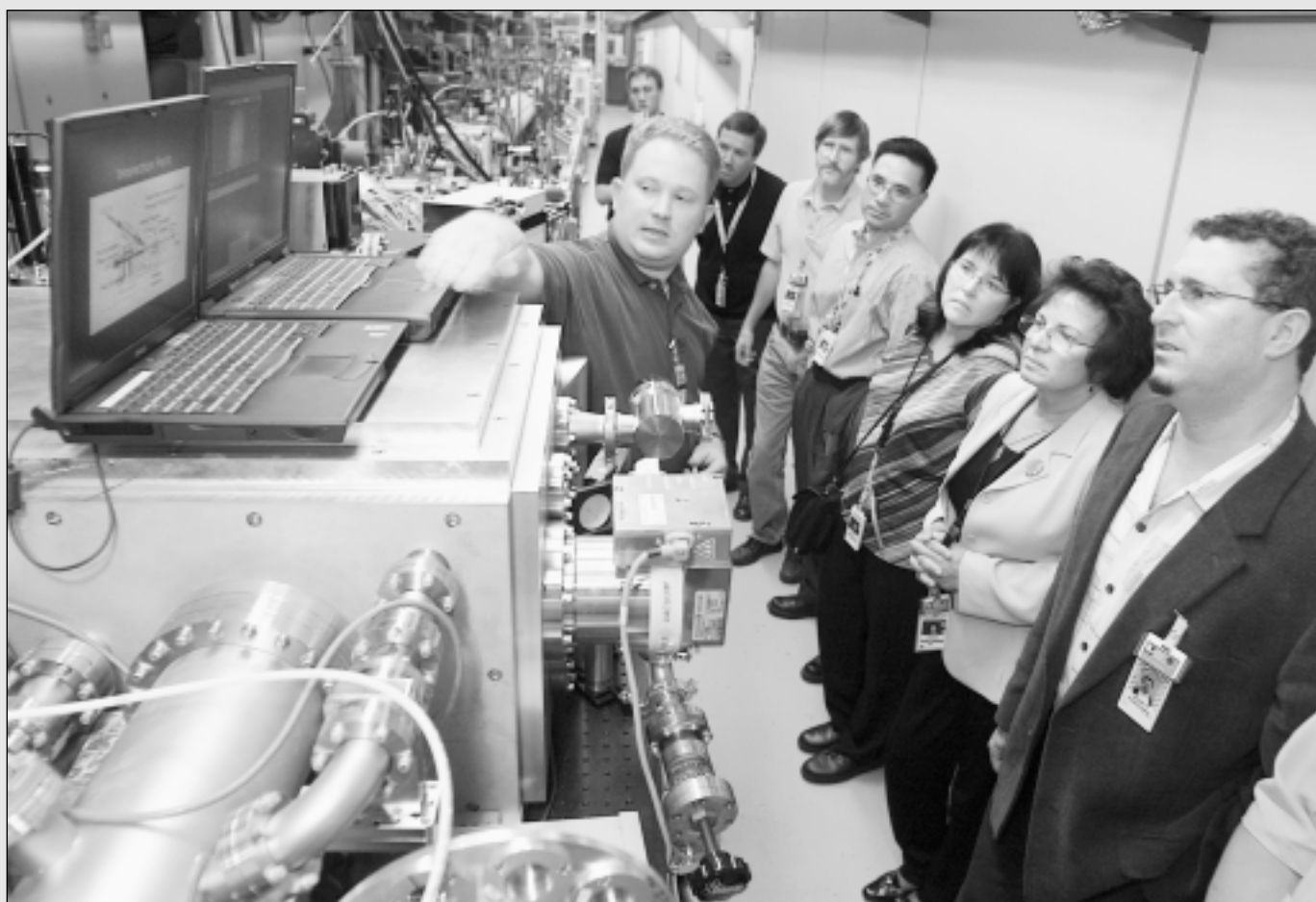
Kunio Takayanagi of the Tokyo Institute of Technology showed images of a "string of pearls", a row of gold atoms and Chris Kiely of Lehigh University demonstrated the self assembly of two and three dimensional arrays of gold nanoparticles.

The week concluded with a look at *in-situ* experimentation and next generation electron optical instrumentation. The potential for nanosecond imaging and femtosecond diffraction to determine complex transient structures with unprecedented spatial and temporal resolution was discussed by Holger Dörmer of the Technische Universität Berlin and Jim Cao of Florida State University.

The next FEMMS meeting will be in 2005 and several sites are under consideration in the Midwest, Germany, Switzerland, and South Korea.

Major sponsorship for the conference came from Lawrence Livermore National Laboratory, Argonne National Laboratory, Lawrence Berkeley National Laboratory, Brookhaven National Laboratory, Frederick Seitz Materials Research Laboratory, Oak Ridge National Laboratory, National Science Foundation, and the University of California at Davis. Corporate sponsors included LEO Electron Microscopy Ltd.; E. A. Fischione, Inc.; Gatan, Inc.; Thermo NORAN; FEI Company; Hitachi-HHTA; JEOL USA, Inc.; Seiko Instruments; and CEOS GmbH.

More information on FEMMS2003 is available online at <http://femms2003.llnl.gov>). Proceedings of the meeting will be published in upcoming issues of *Ultramicroscopy* and *Microscopy and Microanalysis*.



Seeing the light

Graduate student David Gibson, left, shows Deputy Director of Science and Technology Rokaya Al-Ayat, second from right, and other scientists, diagnostics of the 10-meter, 100 MeV accelerator that is part of the Picosecond Laser-Electron Inter-Action for the Dynamic Evaluation of Structures (PLEIADES) project that sits in the basement of Bldg. 194. A tour and open house last week was in celebration of the team achieving first light earlier this year.

JACQUELINE MCBRIDE/NEWSLINE



AUTOMOBILES

1995 - Subaru Outback LS Wagon. AWD, New Tires, Alpine CD, Loaded, Fresh Smog, Great Shapel \$500 under blue book. \$4,540 510-569-0285

1961 - Olds Dynamic 88 wagon - body needs work, decent interior. Rebuilt 394 V8, restoration project/excellent motor for other projects. \$800 OBO 925-447-2217

2001 - Infiniti I30. 32,000mi. Brown, leather, moonroof, AT/AC/CD. Always garaged. Excellent condition in and out. \$19,000. 925-735-1787

2002 - Subaru Impreza WRX. 10,000 miles. \$21,700 OBO. 2.0 L Turbo, 227 HP, 5-speed manual. AWD, 6-CD changer. Leather interior. 925-443-5413

1990 - camero 1990 excellent cond. org. owner \$3800. v8 automatic. 925-828-6790

1994 - Isuzu-Rodeo 4X4, auto-tran, roof-rack, grille-guard, over-sized tires, power window/locks, AC, AM-FM-CD, 112,000 miles, great cond. 4,500.00obo 209-825-9398

1996 - Volvo 850 Turbo, silver, sunroof, leather. Excellent condition. New brakes, tires, ABS module, have all paperwork. 80K miles, \$8900 OBO. 510-909-8766

1997 - 4X4 Yukon, 350 vortec, aftmkt 3rd seat, towpkg, blue, new trans, \$2500 stereo, leather, alloy wheels, runs perf, look great! \$14500 call after 5 209-832-1737

1997 - El Dorado Cad. Low miles, all power, excellent condition, have all service records. Must see. Just 13.500.00 OBO 510-582-2938

1978 - Porsche 911 Targa, excellent condition, garaged, runs excellent, 106,000 original miles, cashmere exterior, dark brown interior, \$14,000/BO 209-745-0420

1991 - Nissan Sanza, white 4 door, 5 spd, AM/FM, 83K miles. Good condition, one owner. \$1600 925-699-1569

1962 - 1962 Cadillac, pearlescent blue-tone white, 4-door, 390cc engine, power windows, low miles, original, \$5000. 209-475-0405

2001 - 2001 VW Jetta 4 Dr GLS Wolfsburg Edition 1.8T, 5 speed, custom stereo, tinted windows, black interior, 67,000 miles. \$12,200 (209)968-2278 209-848-1138

1969 - Ford Mustang convertible,302.3 speed on floor, deluxe interior, runs good \$6500.00 obo 925-373-0483

2003 - Land Rover Discovery SE. Black/Black, fully loded, no third seat. Grill gaurd and clear bra. 16,500 miles, perfect condition. \$34,000. Must see. 925-777-9139

1982 - Corvette Collector Edition 95,000 miles. Currently runs ands drives as a daily driver. All original, has been repainted. \$7500.00 OBO 209-858-1778

1996 - Ford Explorer XLT. 4LV-6, excellent condition, clean, new tires, power everything, loaded, 105000 miles, recently smogged. 925-462-1548

1973 - Black on black, V8, 4 spd manual, decent body and interior, starts and runs well, as is \$6500, OBO. 925-784-2844

2001 - Jeep Wrangler Sahara; 6cyl; mileage 13,750; color Sienna; hard and soft tops; asking \$16,800; 925-449-7066

Toyota Prius Gas-Electric Hybrid. 50K miles. 40/50 MPG lead footed! Buying 2004 model, will sell for blue book, \$12.9K OBO. 510-582-2612

AUTOMOBILE ACCESSORIES

(5) NEW, GOODYEAR, MTR Radials with puncture resistant sidewall technology, mounted on 16in ALUMINUM ALLOY WHEELS. From 2003 JeepRubicon. \$1100.00 925-606-5315

New B.F.G. All Terrain T/A 265/70/16 less than 500 miles 375.00 Firm. 209-814-2090

Snug-Top Tonneau cover, fits 94-03 Chevy S-10/GMC S-15 short bed or ext. cab pickup. Dark red (color code 94U). \$100 925-479-0787

BICYCLES

Girls diamondback bike, 11 inch frame, used twice,great size for 6-10year olds, excellent cond., paid \$250.00, \$125.00 925-449-8806

BOATS

Are you interested in frequent, individual bare-boat charter of roughly 40ft twin-engine motor yacht berthed in Delta? Call for details & discussion. 925-484-1319

CAMERAS

Canon Sure Shot 35mm auto-focus camera. \$25 925-455-8609

CLASSIFIED ADS

Canon AE-1 program, 50mm, 135mm, flash, manual all in very good conditions \$200.00 209-858-4422

Lights & Motion Underwater Video System - Lights, microphone, filters, hard case and Nikon Hi-8 camera. Like new - to many extras to list. \$600 OBO. 209-599-1059

8mm Bell Howell projector model 33SR with sound \$60 925-735-6002

ELECTRONIC EQUIPMENT

Monitor, Sony 17 inch Trinitron Color Multi-scan 200ES. Excellent condition. \$75. 925-648-0671

Computer w/ win 98 great to turn into a Linux box. Pentium II 300MHZ, 64MB RAM, 10GB HD, 2 CD-ROM drives, Floppy Drive, Ethernet card. \$150 925-455-0847

9000BTU AC Sunbeam 2months old 13x19 \$100 5200BTU AC Kenmore 7months old 13.5x17.5 \$50 925-371-8015

Motor, Leeson 1/2 HP, 1725 RPM, 120/240V, 56 frame, 5/8 shaft. \$25 925-455-5655

VHS tapes, hundreds of; 120 & 160. All recorded on once, mostly TV junk. Make offer. 111-222-3456

Microsoft wireless networking equipment for home networking, includes manual, installation CD, etc. \$50/OBO. 925-485-1988

HP Pavilion 8575c Computer, DVD and CDRW, monitor, keyboard, mouse, 256 MB Ram, fire wire, 30 GB HD, NIC card, \$150 209-892-6814

TTY (model 15), Otrona, 2 15 inch PC monitors, 1 PC carcass, 2 non-working HP Desklots. 925-443-8789

GIVEAWAY

Camper,refrigerator,carpet pad - Cab over camper for full size pickup, full bed, water tight; refrigerator old, runs; carpet pad for med size room 925-455-1355

Free Maytag washer broken hinges on lid. GE Dryer. Available Nov15. 925-371-8015

Kenmore Range-Microwave-Exhaust-Surface Light combination. Great for apartment. Doing kitchen re-model w/ different setup. 925-449-6334

HOUSEHOLD

2 wingbacked chairs & ottoman; set \$75. White sofa bed-opens double: \$50. Microwave & cart: \$35. Drop-leaf kitchen table; \$25. 925-455-4027

DRYER-Kenmore, white, good cond. \$50. 209-833-1201

Large Dresser and 2.2-drawer, end tables, dark stained pine, \$50.00 925-449-8806

Bedding for double bed: 1 sunbeam electric mattress pad,2 comforter sets (shams, skirt and sheet set included) \$ reasonable 925-443-1847

Garage sale, furniture, electronics, baby stuff and much more. 10/25/03 at 2128 Lawson cr. Livermore 925-454-1881

Whirlpool Electric Clothes Dryer. Heavy Duty Super Capacity. 5 Cycle 3 Temperature. Almost New. \$100.00. 209-835-7357

CRIB- Solid Oak Narrow slat style. Drop sides, Adj. mattress height. Comes with mattress. \$50.00 925-516-1616

Panasonic Microwave Works great 2 years old black. \$20. 925-371-8015

Solid oak roll top desk. Locking top and drawers. Excellent cond. Paid \$1200 sell for \$600 925-516-8339

Baby crib with mattress and pad, changing table and dresser. Solid maple.Excellent condition, not a scratch. \$600 925-516-8339

25in. color tv w/remote. Good working condition \$75 OBO; bookshelf AM/FM stereo w/phono and cassette player, good condition, \$30 OBO. 925-294-1576

Day-Lite Projection Screen, Silver-Lite Model, 40in.x 40in., in original box, excellent condition. \$20 925-443-1279

Whirlpool refrig. Frost free. Runs great. 100.00 510-582-2938

sofa/futon (opens queensize), bought aug.2003, excellent cond. paid \$80, offer\$50, call after 7pm, 925-518-6207

moving sale/giveaway- Sunday 10/26 in Livermore. Call to make appointment. Sofa, end tables, microwave/convection oven, more. 925-321-1870

New Milgard, replacement series, white vinyl double pane window, rough opening, size 92 1/2 inch Long x 33 1/4 High, 20 inch slider each end. \$150.00 925-443-1453

End tables. Two sets: one antique mohogany (2ea)\$200, one modern teakwood(3ea)\$225. Solid wood. Selling by the set. 925-449-2099

KITCHEN TABLE. Beautiful, round glass top table with 4 chairs. 2 years new. \$300 OBO. Picture available. 925-240-1757

Rare 1937 Occidental electric/wood combination cook stove. Needs electrical upgrade. Appraised at \$700.00 as is. 925-455-0859

Sunbeam Mixmaster 12 speed w dough hooks, etc white/chrome like new only \$50. 60th Anniversary Limited edition 925-447-7070

Bedroom Set: Good Condition, full-size bed, triple dresser with tri-fold mirror, nite stand, plus more. \$200 takes all. Eve/Leave msg: 925-484-0697

MISCELLANEOUS

Whicker picnic basket set, white, enclosed, utensils and wine glasses. Just add wine, cheese, crackers, and fresh fruit. New! \$30 209-475-0405

Campground Membership, Sycamore Ranch on Yuba River near Marysville, camping, fishing, hiking, boating, CtoC and RPI affiliate, \$600. 925-443-1673

Beautiful wood dining table, 3ft dia w/ 3-1 ft.extension leaves and 6 cane chairs. Bought in the 50s all in good shape, \$200.00 / O.B.O 925-449-8806

Moving Sale lots of stuff cheap Oc 24 8am-6pm,Oct25 8am-6pm, Oct26 1-6pm. 3663 Madeira Livermore 925-371-8015

Planer, Rockwell RC-33 13-inch industrial, 2 HP, with HTC roller stand xlint cond. \$950. 925-455-5655

Bicycle - at Lab, small frame with basket. 925-828-3295

Simon & Garfunkel - Tues Nov 4, 2003 HP Pavilion San Jose. Two Floor Tickets Row 47 -- \$225 each. 925-580-9694

Antique Diningroom light. 10.00. American Tourister luggage set of 3 with keys and locks. Good condition. 40.00 510-537-7222

2 custom framed/print southwest style pictures framed by Aaron Brothers. Must sell: Best offer. Message phone: 209-612-2043 Home: 209-475-0405

2 Milgard double-pane windows 30in x 30in, never used, \$30/BO. Girls 16inch bicycle, good condition, \$10/BO. 925-846-5110

shop vacuum 16 gal. wet/dry, tip resistant, 5 hp. dirt devil with attachments, extra paper filters. good shape \$40.00 925-447-1009

MOTORCYCLES

1981 - Kawasaki 440LTD 22,000 miles, garaged, low center of gravity, belt drive, orig. owner \$1,000 925-443-6531

MUSIC INSTRUMENTS

Upright U3 Yamaha piano, excellent condition, black, \$5500. 925-455-1933

Wurlitzer Spinet Piano. Very pretty oak wood. Bench included. Will throw in a few music books too. \$500.00 925-373-9128

PETS & SUPPLIES

Siamese kittens for sale. 8 weeks old very cute MUST go to GOOD, LOVING homes. \$80.00ea. Call after 11 am 209-832-1328

55gal glass Salt water fish tank-Sand,Fish,Live-rock,starfishj,air pump,lighthed hood,filter ect. \$200 obo 925-371-8015

Wire dog crates (2) with denim covers, 28W x 48L x 27H. \$150 for both. 925-455-5655

Bonnie the cat needs a home. 7 yrs. old, very affectionate, short hair, spayed, all shots., Please help. 510-832-3113

Bearded Dragon - Two year old female with a big lighted enclosure needs a good home. Very nice, can be held. \$100 925-449-1606

Dachshund mini,AKC,7wks,1st shots, Dapples & Piebalds 6 females, 2 males \$400-600 CASH Only. 925-513-1786

Free puppy, Australian shepherd mix, male, adorable cow markings, house trained, loves to play. Has had all shots. Needs a good home. 209-832-7630

DOG DOOR- big: 16 x 26 inches, Pet Safe brand, includes heavy flex flap, frame, and metal security cover. Only \$50 Pleasanton. 925-846-5060

RECREATION EQUIPMENT

RV,1997 Pace Arrow, 36 Ft, full awnings slide, 2 TVs, W/D, interior completely redone, new

See complete classified ad listings at https://www.ais.llnl.gov/newsline/ads/

Michelins, 60K miles, \$59,000 925-443-1673

Marine model, one person, Ultralight airplane, all parts, some new, great project, needs assembly. Vector 610. Will sacrafice \$1400.00 925-606-5315

Custom-made Dagger whitewater kayak paddle. 78 inches long, feathered blades, oval shaft. \$300 firm. 925-455-5655

Ivanko free weight set, 150 lbs. Chrome, rubber-encased iron. Was \$225, asking \$50 or best offer. 925-449-7661

Adjustable padded sit-up bench (incline to flat). Has padded leg & foot pegs. \$10 925-455-9409

Arcade Game, 4-player, The Simpsons, by Konami. Super Xmas gift for the kids! \$1,500. 925-484-0697

1976 Winnebago Brave, Dodge 318, 21 FT, Class A, Generator, Headers, Tow Pkg., Sleeps 6, Dual Gas Tanks, Low miles, Runs Great! \$4700 or BO. 209-475-0405

RIDESHARING

Express your commute, call 2-RIDE for more information or visit http://www-r.llnl.gov /tspm.

Danville - looking for driver/rider to complete a four person carpool in the Diablo Rd. area. Work hours 8:15-5pm. 925-831-1569, ext. 2-9858

San Jose & Fremont - Space is available from San Jose and Fremont areas. Work hours: 7:30-4:30. Call 408-238-1909, ext. 3-3057

MANTECA - Rider/Driver needed 7:30AM-4:00PM work hours. 209-823-5593, ext. 3-8539

Tracy - ACE train senior ticket. Tracy to Vasco Rd. Cost \$55.80 will sell for \$45.00 or BO 209-832-5463, ext. 2-7401

Modesto Park and Ride @Mall - Immediate opening in luxury vanpool, captain seats, reading lights, cel phone avail 8-4:45 ridership-based fares. 209-544-2236, ext. 3-3194

Concord/Pleasant Hill/Walnut Creek - Seats available on luxury van. Arrive at lab 7:45AM, depart 4:30PM. 925-947-6969, ext. 2-4206

PATTERSON - Vanpool has seats available for 7:30-4:00 shift. Guaranteed Ride Home & Pre-Tax Transportation Programs available. Fare based on # of riders. 209-892-2118, ext. 2-9502

Orinda - Carpool from Lamorinda seeks 4th rider/driver. Carpool meets near St. Stephens and Hghwy 24. Lab hours 8am to 4:45pm. 925-253-0498, ext. 2-9823

Manteca - 9/80s schedule. Rider/Driver needed. Hours 7:00 to 5:00. Many options available. Call to discuss. 209-825-0326, ext. 3-0631

SHARED HOUSING

Livermore - Room in house to share with two other postdocs. Short or long term. No smoking/pets. \$650 pcm + bills. 925-292-2562

Livermore - 1 bedroom in house. Shared bath & kitchen, washer/dryer. \$550 TOTAL a month, deposit \$550. No pets, no smoking. 925-245-1725

Livermore - Room for Rent \$550, plus 1/3 utilities, 1 mile to LLNL. no smoking/pets 925-989-6138

Livermore - furnished room for rent. Clean/quiet. \$550.00/month. Share utilities 1/3. Mature adult. No pets/no smoking. Deposit required. 925-449-1128

SERVICES

PRINCESS HOUSE get your favorite products FREE ask me How 707-432-0799

Need help around the house? I will help with or do any odd job, from handyman work to helping you move. 209-830-1528

Printed Tee shirts and Sweats for you, your club, team, group, or organization. Custom graphics or your design. 1 or 100. 925-600-0297

All aspects of construction, consultation, and/or inspection services available. 209-475-0405

Rebeccas Home Day Care - Livermore. A safe and loving environment. 925-449-1239

Tutoring in Math, Chemistry, and Biology - over five years of tutoring experience 925-960-0263

TO TRADE

Looking to trade electrical work, for whatever you have to offer. Lets talk. Please call. 209-475-0405

TRUCKS & TRAILERS

1995 - 4 ft x 8 ft fold up trailer,easily stores against a wall, 14 inch wheels, 1000lb. cap., wood slat sides, ideal for hauling furniture, \$150.00 / O.B.O 925-449-8806

Tailgators truck bed cover w/ side bins and ladder/pipe/cable racks and adjustable sliding bins for full size truck. \$250. Ask for Andrew. 925-449-0463

1987 - Chev. G20 Van Conversion 350V8 104K miles AT/AC/PS/PB/PDL/PW/TW/CC/AM-FM-CD/Alarm 2in receiver hitch. Well maintained, reliable 3,750.00/best offer 209-836-4973

1999 - DODGE ST 1500 quad cab short bed, white, V8 5.2L, 5 spd, 2WD, air, am/fm cassette, Leer shell, alloy wheels/all terrain tires, great cond \$9100 925-443-2114

1998 - Dodge SLT Club Cab, loaded, Magnum V8, AM/FM/CD, Dual Air Bags, ABS, dual heated mirrors, camper shell, 114K miles, good condition,\$8,000.00. 925-754-5366

1997 - 4X4 Yukon, 350 vortec, aftmkt 3rd seat, towpkg, blue, new trans, \$2500 stereo, leather, alloy wheels, runs perf, look great! \$14500 call after 5 209-832-1737

1986 - Toyota 4X4 160K miles, runs great 28K OBO ask for Gary 925-449-1961

1991 - Ford F150 XLT Lariat, V8 Auto., 4 WD, fully loaded, Ext. Cab, 125K miles, CD, bed liner, dual gas tanks, excellent condition in/out. \$5600 925-449-4796

2003 - Pace american 6ft.by 10 ft cargo trailer.2 rear, 1 side door.White,excellent condition. Used only 7 months.\$2000.00 or B.O. 925-625-4389

2000 - Dodge, Dakota, SLT, 4X4, Club, V8, Tow,CD/Cass,AC,AT,PS,PW,CC,Powerseat/win/lock, Tilt, Slide window, Spraybed, Alarm, white/2tone, New tires, \$15,000 OBO 209-814-2277

VACATION RENTALS

MAUI - Kihei 1,2&3 bedroom condos. On beach, large pool, tennis courts, putting green. Beautiful grounds, washer/dryer in units. 925-846-8405

Pinecrest - (Off Sonora Pass Road), 3 bdrm/2 bath, frlpc w/wood, microwave, dishwasher, pool table, large deck and view up No. Fork of Tuolumne, \$195/wknd. 925-449-5513

Soda Springs/Donner Summit, Classic A frame, 2BR/1BA+Loft, sleeps 8, convt to biking, hiking, everything. \$200 wknd,\$500/week call for availability 209-836-3481

MAUI HOUSE EXCHANGE - live in MAUI for a year! Beginning Jul-Aug 2004. 925-449-4003

Puerto Vallarta - 2BR/2 BA beachfront condo, 2 pools & private beach. Available 12/25/03 - 1/1/04 or 1/1/04 - 1/8/04. \$550/wk or \$850/both wks. 209-545-1308

Solana Beach/Del Mar - Oceanfront condo, Deluxw 2 br., 2 1/2 ba., fully equiped, tennis, pool, jacuzzi, gated and covered parking, near San Diego attractions 925-443-2271

SOUTH LAKE TAHOE - 3 Bedroom 2 bath Chalet, newly remodeled, nicely furnished, all amenities, close to all skiing. RESERVE NOW FOR HOLIDAYS! 209-599-4644

Maui, HI - Kahana Reef oceanfront 1BR/1BA condominium. Beautiful two-island view, oceanside pool, and BBQs. Low LLNL rates for year-round reservations. 925-449-0761

Cabo San Lucas - Time share week at Cabo San Lucas. Pueblo Bonito Blanco. Week #43 Call for price and information. 510-782-2349

WANTED

Want to buy a 1/2 or 3/4 size student violin for my 10 year old daughter. 925-455-8006

1978 - Wanted: VW bus, late 70s preferred. Camper or plain, in good working order, prefer no corrosion. 925-443-8789

in search of clip in pedals and cleats with a bit of mileage left in them, willing to pay \$20 925-449-8806

Play Pen in good condition. 925-456-3045

Free or cheap firewood, about 20-25 pieces. Funny shapes and sizes okay (for campfires). Will pick up. 510-435-7302

Services and merchandise listed in *Newsline* are not guaranteed. It is up to the buyer to scrutinize services purchased.

Former LLNL engineer works to get NASA back in orbit

By Charles Osolin

NEWSLINE STAFF WRITER

The future of the U.S. manned space program may well depend in part on the skills of a former LLNL engineer who has become one of NASA's chief troubleshooters.

Jose M. Hernandez, who gained a reputation for finding creative solutions to a variety of problems during his 15 years at the Laboratory, now faces the challenge of helping prevent another accident like the Feb. 1 Columbia disaster. The space shuttle fleet has been grounded for at least a year until robust ground inspection techniques and in-flight repair kits are in place.

As chief of the Materials and Processes Branch at NASA's Johnson Space Center in Houston, Hernandez leads a team of government employees and contract workers who have been analyzing the cause of the Columbia accident and developing ways to inspect, strengthen and repair the shuttle's critical thermal protection systems and other components to head off future failures.

Capping off the Lab's celebration of Hispanic Heritage Month with a talk sponsored by the LLNL Amigos Unidos Networking Group, Hernandez noted that propulsion-system problems played a central role in both the Columbia crash and the destruction of the shuttle Challenger during liftoff 17 years earlier.

The breakdown of cold-stiffened O-rings in its solid rocket engine led to the Challenger accident, Hernandez said, while the Columbia crash was triggered by an air pocket in the insulating foam on the shuttle's external fuel tank.

Hernandez said the air pocket expanded as the shuttle rose through the atmosphere, causing a chunk of foam to break off and damage reinforced carbon-carbon panels on the leading edge of the shuttle's left wing.

The breach in the orbiter's heat shield "allowed 3,000-degree plasma to get into the wing structure" during Columbia's re-entry, melting the wing's inter-



JACQUELINE MCBRIDE/NEWSLINE

Jose M. Hernandez

nal aluminum supports, Hernandez said. "The aerodynamic loads overcame the structural integrity of the wing and caused the accident."

Hernandez, an aspiring astronaut who has been a finalist for the space agency's Astronaut Candidate Program the past two selection cycles, said that even though the space shuttle program is more than 20 years old, "we are still learning about it, and materials issues will continue to be a concern." Not only are shuttle components subject to aging-related problems like oxidation, corrosion and friability, they also must endure high levels of vibration, sudden changes in temperature and pressure, and damage from micrometeorites and other debris.

"There are lots of subsystems and a lot of complexity" in the shuttles, he said, "and so there is a lot of opportunity to have parts fail. If there's a problem, we need to be ready to come up with a solution in real time so our crew gets back safely."

Problems can arise even while the shuttle is still on the ground, Hernandez said. His team recently discovered that the vibration in the huge "crawler" that transports the shuttle from its hangar to its launching pad – at a speed of one m.p.h. – was causing high-cycle fatigue and leaks in the shuttle's flexible hoses. The massive transporter can't be fitted with shock absorbers, Hernandez said with a grin, so his group is working to redesign the hose supports to provide better insulation against vibration.

The team is also introducing better ground and in-orbit inspection techniques, including the use of advanced nondestructive evaluation (NDE) technologies developed at LLNL. In some cases, Hernandez has called on his former Lab colleagues to apply the Lab's high-resolution computed tomography and ultrasonic scanning techniques to inspect critical shuttle components. Hernandez became familiar with NDE technologies while working at the Lab and applied them to human health issues when he helped develop the first full-field digital mammography imaging system, now being used in the early detection of breast cancer.

Better inspections are only part of the changes NASA is making in the shuttle program, Hernandez said. Before the shuttles can fly again, repair kits must be developed that will allow the astronauts to fix damaged thermal protection tiles while in orbit. Solutions ranging from high-tech "caulking guns" to hardware-store paintbrushes are being tested to determine which materials and application techniques will work in a freezing, zero-gravity environment, yet survive the 3,000-degree temperatures of reentry.

Despite the space program's recent setbacks, Hernandez was optimistic that the problems will be solved and manned space flight will continue. "We need to press forward," he said, "return to flight activities, and ensure that what happened with Columbia doesn't occur again."

MEMORIAL

Continued from page 1

made available on videotapes that can be loaned to all departments.

Elected officials and international dignitaries, longtime colleagues, friends and family will pay tribute to Teller during the ceremony. Speakers include Deputy Secretary of Energy Kyle McSlarrow; Rep. Ellen Tauscher and Andras

Simonyi, the ambassador of Hungary.

University of California President Robert Dynes, Hoover Institution Director John Raisian, UC Board of Regents President John Moores and former Lab Director John Foster also will pay tribute. Video tributes from colleagues throughout the nation have also been recorded for the event.

Laboratory Director Michael Anastasio will preside over the ceremony, which will include a video reflection of Dr. Teller's life, musical

recitals, readings of Teller's poetry and a special Laboratory color guard presentation. The ceremony will close with remarks by Teller's children, Wendy and Paul.

Starting next week, parts of the A-2 parking lot (near the Bldg. 123 auditorium) will be blocked off to begin preparations for the commemoration. Employees are advised to seek additional parking in the A-1, Z-1 and Z-2 lots, in the southwest corner of the Lab.

FOLEY

Continued from page 1

for the university's management of the three national laboratories it administers on behalf of DOE and NNSA.

"We are honored that Admiral Foley is taking on this leadership position," UC President Robert Dynes said. "Bob is a well-respected, serious manager with deep expertise that will be extremely beneficial as we move toward a decision regarding competition in the laboratory management environment. The work of the national laboratories is critical to our nation's security, and Bob has the experience, the drive and the leadership abilities to ensure that scientific and technological breakthroughs continue while we continue to make management improvements."

From his work with the energy and defense departments, Foley brings an extensive understanding of the national laboratories and significant experience in project management. As DOE assistant secretary for defense programs during the Reagan administration, Foley's position included direct responsibility for the nuclear weapons complex, including the Los Alamos and Lawrence Livermore national laboratories and the other nuclear weapons plants and facilities.

In addition, Foley has served as chair of a series of advisory groups at Los Alamos, including chairman of the program management review panel and

Dynes, Foley to visit Lab

UC President Robert Dynes and Adm. Robert Foley, the newly named UC vice president of Laboratory Management, will visit the Lab Monday, Nov. 3. Dynes and Foley will give an all-hands talk to employees at 9:30 a.m. in the Bldg. 123 auditorium.

chairman of the facilities reutilization and consolidation committee. Foley also served as chairman of the blue ribbon committee to oversee nuclear pit manufacturing and certification. This committee provided the NNSA with a rigorous review of all of the Laboratory's pit program and project activities and related supporting functions.

Foley also served as president of the advanced technology group at ICF Kaiser Engineers. In 1991, Foley joined the Raytheon Co., where he held a range of positions including vice president for commercial marketing, president of Raytheon Japan and vice president of Asian operations for Raytheon International Inc.

Foley told reporters the national labs are "a great asset to the university," adding he was a "strong supporter" of the labs, which "provide a valuable service to the nation."

Speaking to the possibility the contracts to man-

age the labs may be put out for bid, Foley said he was "moving forward with the idea competition will come."

Darling, who served as interim vice president for lab management, said the final decision to compete will have to be made by the UC Board of Regents, but that the university will most likely compete as long as "science plays a big part" in the DOE's request for proposals (RFP). "We're preparing to compete," he said.

Asked if the university would consider partnering with industry or another institution to manage the labs, Foley said: "We're looking at all the options."

Foley said he would be "vigorous" and "hands-on" in his effort to bring Laboratory business and management practices into line with the excellence of the labs' science and technology.

Responding to questions about his qualifications, Foley said: "I have a lot of experience running large operations," such as commanding U.S. Navy's Pacific fleet, as well as "experience leading people."

When a reporter asked Foley why he took the job, he laughed and said his children had asked him the very same question. "I have a great deal of respect for the labs...I don't have an axe to grind," he said. "It's a challenge and I think I can be helpful."

For the complete UC news release or more information check the Web at: www.universityof-california.edu.

Surprise R&D 100 for national labs' EUVL effort

A team of national laboratory and industrial researchers that journeyed to Chicago last week to pick up their R&D-100 award received a surprise – another special award.

Scientists from three national labs – Livermore, Sandia and Berkeley – and one company, Northrop Grumman Space Technology/Cutting Edge Optronics, were honored twice at the Oct. 16 dinner.

Their new tool, the Extreme Ultraviolet Lithography (EUVL) Full-Field Step-Scan System, represents a revolutionary lithography breakthrough that

will enable dramatic improvements in computer chip speed and memory during the next decade.

After all 100 awards had been presented last week to the winning teams, the EUVL researchers received one of three “Editor’s Choice” awards for the most outstanding achievement among the award winners.

The EUVL team was honored for making the “Greatest Improvement Upon an Existing Technology” for its work in advancing the field of lithography.

“The editors of *R&D Magazine* look at all

100 awards and honor those technologies that stand out from the rest of the award recipients,” said *R&D Magazine* Editor-in-Chief Tim Studt.

The two other “Editor’s Choice” awards went to General Electric, for the “most socially responsible new technology,” for its real-time radiography detector system, which does real-time searches for terrorist materials; and to Hitachi, for the “most promising new technology,” for its AG 8100, the first available technology for the next generation of Internet protocols.

S&T AWARDS

Continued from page 1

tering the art of automated, “high-throughput” DNA sequencing, making JSI one of the world’s fastest and most efficient genome sequencing facilities. From 1998 to 2002, the integrated team increased production rates by almost a factor of 100.

The plutonium team, led by Joe Wong of the Chemistry & Materials Science Directorate and made up of Carl Boro, Dan Farber, Floren Occelli, Adam Schwartz and Mark Wall, used a unique high-resolution inelastic X-ray scattering technique to take measurements at the European Synchrotron Radiation Facility in Grenoble, France. The team worked in collaboration with synchrotron researchers and scientists at the University of Illinois at Champaign-Urbana.

Measuring the phonon dispersion curves is key to understanding the properties of plutonium materials such as force constants, sound velocities, elasticity, phase stability and thermodynamics. The team con-

ducted the research under an ongoing Laboratory Research and Development project and achieved its results during the first year.

“This landmark discovery greatly contributes to the Laboratory’s mission to ensure the safety and reliability of the nation’s aging nuclear weapons,” Graboske said of the achievement.

The LLNL-JGI team worked in conjunction with Lawrence Berkeley National Laboratory scientists who also attended the luncheon and include Paul Richardson, Nancy Hammon, Heather Kimball, Martin Pollard and Alex Copeland.

The rapid advances in genome sequencing technologies, many of which were pioneered at JGI, enabled the Production Sequencing Team to complete the draft sequencing of human chromosomes 5, 16, and 19, the Department of Energy’s contribution to the international Human Genome Project, in April 2000 — more than two years ahead of schedule. JGI was the first team to complete its portion of the draft human genome.

Today, JGI has the ability to sequence up to two

billion high-quality bases of DNA — the equivalent of two-thirds of the human genome — every month.

The JGI’s 100-fold increase in sequencing capacity since its founding in 1997 was made possible by the team’s adoption of new high-speed capillary sequencing machines, improved robotics for DNA preparation and sequencing reactions, new purification methods, better project tracking, and incremental improvements in sequencing chemistry. Equally important were careful planning, dedication, and concentrated effort by the team — spurred on by the desire to ensure that the “Book of Life” detailing the human genetic makeup would be freely available to researchers and the public.

“This extraordinary achievement has helped us meet our DOE milestones and contribute to the final sequencing of the human genome so we can better understand the human body and ultimately treat disease,” Graboske said.

Staff writer Charles Osolin contributed to this report.

OPEN ENROLLMENT

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ulty and staff with health benefits that are among the best in higher education, these soaring health insurance costs combined with reduced state funding due to California’s budget crisis have created significant challenges.

Despite these pressures, UC has managed to preserve access to quality health care and continues to offer a range of choices to serve the diverse needs of its members. There will be increased monthly premiums in 2004, but UC has taken some innovative measures to help preserve access and choice. For instance, expanding on the “transition allowance” in 2003, UC has established a four-level medical premium structure based principally on full-time salary rate, so that employees who earn the least will have the lowest premiums. In addition, UC contributions will be weighted so that employees and enrolled children will receive a slightly higher UC contribution than enrolled adult family members.

UC will continue to provide dental and vision coverage at no cost to employees. Additionally, you will see significant reductions in employee costs for supplemental disability and life insurance, thus freeing up dollars that you can use to help reduce the costs of your medical premiums.

The Health Care Reimbursement Account, introduced last year, can help employees save on taxes by putting pretax money aside for out-of-pocket health care costs. And the Tax Savings on Insurance Premiums program (TIP) allows employees to pay their medical plan premiums on a pretax basis as well.

Open Enrollment for active employees has moved to the Internet (<http://atyourservice.ucop.edu>). In addition to being simpler and easier than the telephone enrollment, online enrollment provides significant cost savings for printing and postage. Our Internet tools, such as the Medical Plan Chooser, can help employees be wiser medical insurance consumers. Employees won’t use the telephone to make

their changes as in the past.

In late October, UC will mail an Open Enrollment booklet that summarizes key plan changes, medical plan highlights and other information to help you make informed decisions. Employees will not receive a personalized Open Enrollment statement in the mail because this information will be online.

If an employee doesn’t have a computer at work, Open Enrollment transactions can be conducted from a home computer if there is access to the Internet. For employees who do not have access to a computer or who need help with making changes, computers are available in the Benefits Office, Bldg. 571, room 1205, from 8 a.m. to 5 p.m.

The best source of information about medical plan options is always the insurance carrier. The LLNL Benefits Fair is scheduled for Nov. 12 from 2 – 5 p.m. in the West Cafeteria. Plan representatives will be on hand to answer questions.

Employees can take the following actions during Open Enrollment:

- Change to a different medical plan
- Change to a different dental plan (California residents only).
- Opt out of medical, dental, and/or vision coverage or if you previously opted out, cancel your opt-out request and enroll in a new plan.
- Enroll eligible family members in your health plans. (See the UC Group Insurance Eligibility Fact sheet — 2004 for information about family member eligibility.)
- Cancel coverage for a currently enrolled family member.
- Enroll yourself and/or your eligible family members in the ARAG Legal Plan. The legal plan is open for enrollment for the first time in several years. The ARAG Group, a world leader in providing legal benefits, has been selected to administer the plan. Premiums will increase slightly, but the plan will offer enhanced benefits and a larger network of attorneys to serve employees.
- Enroll or reenroll in the Dependent Care Reimbursement Account (DepCare) and/or in the Health Care Reimbursement Account

(HCRA).

- Cancel Tax Savings on Insurance Premiums (TIP) participation or reenroll if you previously cancelled.

If you don’t want or need to make any changes in your health or legal plans, you don’t need to do anything further. Your current coverage will continue for 2004.

You must reenroll in DepCare and/or HCRA, however, to continue your participation for 2004.

All Open Enrollment changes will be effective Jan. 1, 2004.



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